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EXAMINER	
THOMPSON, JAMES A	

ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/814,500	HART ET AL.	
	Examiner	Art Unit	
	James A. Thompson	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 March 2004 and 27 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-118* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-118* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/27/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 56-80 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 56-80 each recite the limitation "the second output device" in line 1 of each respective claim. There is insufficient antecedent basis for this limitation in each of the claims. For the purpose of analyzing the claims with respect to the prior art, Examiner interprets "the second output device" to mean an output device other than the printing device.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-6, 20-21, 40, 45, 55, 81-84, 98-99 and 118 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent

6,476,793 B1) and Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998).

Regarding claim 1: Jacobs discloses a system (figure 1 of Jacobs) comprising a first processing device (figure 1(11) of Jacobs) for performing a multimedia function (figure 2(42-44) and column 3, lines 44-45 and lines 63-68 of Jacobs) on media data (figure 1(27) and column 3, lines 12-14 of Jacobs); and a second processing device (figure 1(12) and column 3, lines 9-11 of Jacobs), communicatively coupled to the first processing device by a network (figure 1(20) and column 3, lines 5-8 of Jacobs), for performing a multimedia function (figure 2(42-44) and column 3, lines 44-45 and lines 63-68 of Jacobs) on the media data (figure 1(28) and column 3, lines 9-14 of Jacobs). Said first processing device and said second processing device performs multimedia functions together in parallel (column 3, lines 5-11 of Jacobs).

Jacobs does not disclose expressly that said first processing device is a printing system; that said media data is specifically time-based media data; and a user interface for receiving a user selection of an amount of processing to be performed by the printer and an amount of processing to be performed by the processing device.

Motoyama discloses a printing system (figure 7 and column 2, lines 24-25 of Motoyama) for performing a multimedia function (column 3, lines 41-46 of Motoyama) on time-based media data (column 3, lines 29-34 and lines 47-49 of Motoyama); and a user interface (figure 8 and column 2, lines 26-27 of Motoyama) for

receiving user selections of processing parameters (column 2, lines 50-55 of Motoyama).

Jacobs and Motoyama are combinable because they are from the same field of endeavor, namely processing multimedia data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically process *time-based* media data on a printing system, as taught by Motoyama, in parallel with a processing device, as taught by Jacobs, and using a user interface, as taught by Motoyama. Thus, the first processing device taught by Jacobs is the printing system taught by Motoyama. The second processing device taught by Jacobs then simply becomes the processing device. The motivation for doing so would have been to provide a useful type of video processing apparatus (column 1, lines 60-64 of Motoyama). One of ordinary skill in the art at the time of the invention would easily have recognized the utility of being able to print directly from the processing device that performs video data processing. Further, the user interface taught by Motoyama enhances the ease with which color setting is performed. Therefore, it would have been obvious to combine Motoyama with Jacobs.

Jacobs in view of Motoyama does not disclose expressly that said processing parameter that the user selects with said user interface is an amount of processing to be performed by the printer and an amount of processing to be performed by the processing device.

Gopal discloses adjusting an amount of processing to be performed by separate parallel processors (page 2, section 1.3 of Gopal).

Jacobs in view of Motoyama is combinable with Gopal because they are from similar problem solving areas, namely handling the processing of data in parallel systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the user interface taught by Motoyama to adjust an amount of processing to be performed by separate parallel processors, as taught by Gopal, wherein said parallel processors are the printing system and the processing device taught by Jacobs in view of Motoyama. The motivation for doing so would have been to allow the user to more intelligently use the available processing power in a heterogeneous system, thus improving the overall performance of the parallel processing (page 1, section 1.1, paragraph 1 of Gopal). Therefore, it would have been obvious to combine Gopal with Jacobs in view of Motoyama to obtain the invention as specified in claim 1.

Regarding claim 2: Jacobs discloses that the processing device includes the user interface (column 4, lines 33-34 and lines 37-40 of Jacobs).

Further regarding claim 3: Motoyama discloses that the printer includes the user interface (figure 8 and column 2, lines 50-55 of Motoyama).

Regarding claim 4: Jacobs discloses that the user interface is on a device separate from the processing device and the printer (figure 1(10); column 3, lines 3-8 and column 4 lines 1-4 of Jacobs).

Further regarding claims 5/2-5/4: Motoyama discloses that the user interface displays status information about the performance of the multimedia function (figure 8(809) and column 3, lines 23-28 of Motoyama).

Further regarding claim 45: Motoyama discloses that the user interface is configured to allow a user to control a multimedia server (column 3, lines 2-5 and lines 13-19 of Motoyama).

Further regarding claim 55: Motoyama discloses that the processor is further configured to display results of the multimedia function on the display of the user interface (figure 8(809) and column 3, lines 23-28 of Motoyama).

Regarding claim 81: Jacobs discloses receiving media data from a media source (column 3, lines 3-8 and lines 12-14 of Jacobs); performing, by a first processing device (figure 1(11) of Jacobs), an amount of processing to be performed by the first processing device (column 3, lines 9-16 of Jacobs) to carry out a specified multimedia function (figure 2(42-44) and column 3, lines 44-45 and lines 63-68 of Jacobs); performing, by a second processing device (figure 1(12) of Jacobs), an amount of processing to be performed by the second processing device (column 3, lines 9-16 of Jacobs) to carry out the specified multimedia function (figure 2(42-44) and column 3, lines 44-45 and lines 63-68 of Jacobs); and producing an electronic output associated with the processed media data (figure 4; column 3, lines 3-5; and column 4, lines 59-63 of Jacobs).

Jacobs does not disclose expressly that said media data is specifically time-based media data; receiving user input, the user input specifying a multimedia function to perform on the time-based media data, an amount of processing to be performed by a printer, and an amount of processing to be performed by a processing device; and producing output on the printer associated with the processed media data.

Motoyama discloses receiving user input (figure 8 and column 2, lines 26-27 of Motoyama), the user input specifying a multimedia function (column 2, lines 50-55 of Motoyama) to perform on the time-based media data (column 3, lines 29-34 and lines 47-49 of Motoyama); and producing output on the printer associated with the processed media data (column 3, lines 47-52 of Motoyama).

Jacobs and Motoyama are combinable because they are from the same field of endeavor, namely processing multimedia data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically process *time-based* media data on a printing system, as taught by Motoyama, in parallel with a processing device, as taught by Jacobs, and using a user interface, as taught by Motoyama. Thus, the first processing device taught by Jacobs is the printing system taught by Motoyama. The second processing device taught by Jacobs then simply becomes the processing device. The motivation for doing so would have been to provide a useful type of video processing apparatus (column 1, lines 60-64 of Motoyama). One of ordinary skill in the art at the time of the invention would easily have recognized the utility of being able to print directly from the processing device that performs video data processing. Further, the user interface taught by Motoyama enhances the ease with which color setting is performed. Therefore, it would have been obvious to combine Motoyama with Jacobs.

Jacobs in view of Motoyama does not disclose expressly that said user input specifies an amount of processing to be performed by a printer, and an amount of processing to be performed by a processing device.

Gopal discloses adjusting an amount of processing to be performed by separate parallel processors (page 2, section 1.3 of Gopal).

Jacobs in view of Motoyama is combinable with Gopal because they are from similar problem solving areas, namely handling the processing of data in parallel systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the user interface taught by Motoyama to adjust an amount of processing to be performed by separate parallel processors, as taught by Gopal, wherein said parallel processors are the printing system and the processing device taught by Jacobs in view of Motoyama. The motivation for doing so would have been to allow the user to more intelligently use the available processing power in a heterogeneous system, thus improving the overall performance of the parallel processing (page 1, section 1.1, paragraph 1 of Gopal). Therefore, it would have been obvious to combine Gopal with Jacobs in view of Motoyama to obtain the invention as specified in claim 81.

Further regarding claim 82: Motoyama discloses that the user input is received at the printer (figure 8 and column 2, lines 50-55 of Motoyama).

Regarding claim 83: Jacobs discloses that the user input is received at the processing device (column 4, lines 33-34 and lines 37-40 of Jacobs).

Regarding claims 6 and 84: Jacobs discloses that the processing device is a personal computer (figure 3 and column 4, lines 33-34 and lines 40-46 of Jacobs).

Further regarding claims 20 and 98: Motoyama discloses that the multimedia function includes selecting a range of video

data in response to received input from the user (figure 8(808, 816) and column 3, lines 13-15 and lines 20-23 of Motoyama).

Further regarding claims 21 and 99: Motoyama discloses that the multimedia function includes applying a video event detection function to the time-based media data (column 3, lines 29-38 of Motoyama).

Further regarding claims 40 and 118: Motoyama discloses that the multimedia function includes applying a visual inspection function to the time-based media data (figures 10A and 10B; and column 2, lines 55-59 of Motoyama).

5. Claims 7-9, 12-13, 23-28, 47-48, 67, 79, 85-87, 90-91 and 101-106 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), and Chino (US Patent 6,118,888).

Regarding claims 7 and 85: Jacobs in view of Motoyama and Gopal does not disclose expressly that said multimedia function includes selecting a range of audio data in response to received input from the user.

Chino discloses selecting a range of audio data in response to received input from the user (column 14, lines 8-18 of Chino). Only the audio data that is intended to be input by the user is input in response to the appropriate user input, while any other noise is ignored by the system (column 14, lines 8-18 of Chino).

Jacobs in view of Motoyama and Gopal is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to allow the user to input only a specifically desired range of audio data, as taught by Chino. The motivation for doing so would have been to prevent unintended and erroneous audio input (column 14, lines 10-11 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 7 and 85.

Regarding claims 8, 13, 86 and 91: Jacobs in view of Motoyama and Gopal does not disclose expressly that said multimedia function includes applying audio event detection to the time-based media data.

Chino discloses applying audio event detection to the time-based media data (column 14, lines 8-18 of Chino). The system detects when audio data is intended to be input by the user, while any other noise is ignored by the system (column 14, lines 8-18 of Chino).

Jacobs in view of Motoyama and Gopal is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to detect audio data events, as taught by Chino. The motivation for doing so would have been to prevent unintended and erroneous audio input (column 14, lines 10-11 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 8, 13, 86 and 91.

Regarding claims 9 and 87: Jacobs in view of Motoyama and Gopal does not disclose expressly that the multimedia function includes determining a confidence level associated with the audio event detection.

Chino discloses that an audio event is detected (column 14, lines 8-11 of Chino) based on specific criteria that are to be met to the satisfaction of a computer automated system (column 14, lines 11-19 of Chino). Thus, a confidence level associated with the audio event detection is determined.

Jacobs in view of Motoyama and Gopal is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to detect audio data events based on a determined confidence level, as taught by Chino. The motivation for doing so would have been to prevent unintended and erroneous audio input (column 14, lines 10-11 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 9 and 87.

Regarding claims 12 and 90: Jacobs in view of Motoyama and Gopal does not disclose expressly that said multimedia function includes applying a sound source localization function to the time-based media data.

Chino discloses applying a sound source localization function to time-based media data (column 13, lines 5-14 of Chino). By using the gaze object detection portion of the multi-modal interface apparatus, the audio sound source localization is determined.

Jacobs in view of Motoyama and Gopal is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a sound source localization function to the time-based media data, as taught by Chino. The motivation for doing so would have been to ensure that user input is intended, and the user is not speaking to someone else (column 1, lines 52-58 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 12 and 90.

Regarding claims 23 and 101: Jacobs in view of Motoyama and Gopal does not disclose expressly that said multimedia function includes applying a face detection function to the time-based media data.

Chino discloses applying a face detection function to time-based media data (figure 20(406) and column 24, lines 25-27 of Chino).

Jacobs in view of Motoyama and Gopal is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a face detection function to time-based media data, as taught by Chino. The motivation for doing so would have been to determine which particular user corresponds to the current user by recognition of the current user's face (column 26, lines 20-22 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 23 and 101.

Further regarding claims 24 and 102: Chino discloses applying a clustering function to the time-based media data to merge multiple instances of a face into a representative image (column 26, lines 1-12 of Chino).

Regarding claims 25 and 103: Jacobs in view of Motoyama and Gopal does not disclose expressly that said multimedia function includes applying a face recognition function to the time-based media data.

Chino discloses applying a face recognition function to time-based media data (figure 20(406) and column 24, lines 25-27 of Chino).

Jacobs in view of Motoyama and Gopal is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a face recognition function to time-based media data, as taught by Chino. The motivation for doing so would have been to determine which particular user corresponds to the current user by recognition of the current user's face (column 26, lines 20-22 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 25, 32, 35, 103, 110 and 113.

Regarding claims 26 and 104: Jacobs in view of Motoyama and Gopal does not disclose expressly that the multimedia function includes applying an optical character recognition function to the time-based media data.

Chino discloses applying an optical character recognition function to time-based media data (figure 3(102j) and column 7, lines 14-18 of Chino).

Jacobs in view of Motoyama and Gopal is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply an optical character recognition function to time-based media data, as taught by Chino. The suggestion for doing so would have been that character recognition from an electronic pen is simply another useful electronic means to input data into a computerized system (figure 3 and column 7, lines 2-11 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 26 and 104.

Further regarding claims 27 and 105: Chino discloses applying a clustering function to the time-based media data to merge similar results of the optical character recognition (column 7, lines 15-21 of Chino). The particular language input by the user, such as German, Russian and Chinese, which use different character sets, is detected. The particular language determines the cluster of characters to use in optical character recognition (column 7, lines 15-21 of Chino).

Regarding claims 28 and 106: Jacobs in view of Motoyama and Gopal does not disclose expressly that the multimedia function includes applying a motion analysis function to the time-based media data.

Chino discloses applying a motion analysis function to time-based media data (figure 3(102f) and column 7, lines 33-38 of Chino).

Jacobs in view of Motoyama and Gopal is combinable with Chino because they are from the same field of endeavor, namely

the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a motion analysis function to time-based media data, as taught by Chino. The suggestion for doing so would have been that detection of a user's motion and gestures is simply another useful electronic means to input data into a computerized system (figure 3 and column 7, lines 2-11 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 28 and 106.

Regarding claim 47: Jacobs in view of Motoyama and Gopal does not disclose expressly that said user interface is configured to allow a user to control audio sound localization hardware.

Chino discloses controlling audio sound localization hardware (column 13, lines 5-14 of Chino). By using the gaze object detection portion of the multi-modal interface apparatus, the audio sound localization is determined.

Jacobs in view of Motoyama and Gopal is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to configure the user interface taught by Motoyama to allow a user to control audio sound localization hardware, as taught by Chino. The motivation for doing so would have been to ensure that user input is intended, and the user is not speaking to someone else (column 1, lines 52-58 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claim 47.

Regarding claim 48: Jacobs in view of Motoyama and Gopal does not disclose expressly that said user interface is configured to allow a user to control motion detection hardware.

Chino discloses controlling motion detection hardware (figure 3(102f) and column 7, lines 33-38 of Chino).

Jacobs in view of Motoyama and Gopal is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to configure the user interface taught by Motoyama to allow a user to control motion detection hardware, as taught by Chino. The suggestion for doing so would have been that detection of a user's motion and gestures is simply another useful electronic means to input data into a computerized system (figure 3 and column 7, lines 2-11 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claim 48.

Regarding claim 67: Jacobs in view of Motoyama and Gopal does not disclose expressly that the second output device is audio sound localization hardware.

Chino discloses controlling as an output device audio sound localization hardware (column 13, lines 5-14 of Chino). By using the gaze object detection portion of the multi-modal interface apparatus, the audio sound localization is determined.

Jacobs in view of Motoyama and Gopal is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to output audio data through audio

sound localization hardware, as taught by Chino. The motivation for doing so would have been to ensure that user input is intended, and the user is not speaking to someone else (column 1, lines 52-58 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claim 67.

Regarding claim 79: Jacobs in view of Motoyama and Gopal does not disclose expressly that the second output device is hardware for capturing data from an electronic pen.

Chino discloses controlling as an output device hardware for capturing data from an electronic pen (figure 3(102i) and column 7, lines 14-16 of Chino).

Jacobs in view of Motoyama and Gopal is combinable with Chino because they are from the same field of endeavor, namely the control and processing of digital data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use hardware for capturing data from an electronic pen, as taught by Chino. The suggestion for doing so would have been that an electronic pen is simply another useful output device that provides digital data a user may wish to obtain (figure 3 and column 6, lines 66-67 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claim 79.

6. Claims 10-11 and 88-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii*

International Conference on System Sciences, 6-9 January 1998), and Kametani (US Patent 5,091,948).

Regarding claims 10 and 88: Jacobs in view of Motoyama and Gopal does not disclose expressly that said multimedia function includes applying a speaker segmentation function to the time-based media data.

Kametani discloses applying a speaker segmentation function to time-based media data (figure 3d and column 5, lines 5-9 and lines 29-33 of Kametani).

Jacobs in view of Motoyama and Gopal is combinable with Kametani because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a speaker segmentation function to said time-based media data, as taught by Kametani. The motivation for doing so would have been that using a speaker segmentation function extracts parameters that uniquely identify a speaker, thus improving the level of speaker discrimination (column 5, lines 29-35 of Kametani). Therefore, it would have been obvious to combine Kametani with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 10 and 88.

Further regarding claims 11/1, 11/10, 89/81 and 89/88: Kametani discloses applying a speaker recognition function to said time-based media data (column 5, lines 29-35 of Kametani).

7. Claims 14-15 and 92-93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and

Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), and Halverson (US Patent Application Publication 2002/0101513 A1).

Regarding claims 14 and 92: Jacobs in view of Motoyama and Gopal does not disclose expressly that said multimedia function includes applying a speech recognition function to said time-based media data.

Halverson discloses applying a speech recognition function to time-based media data (para. 24, lines 2-5 and para. 25, lines 21-23 of Halverson).

Jacobs in view of Motoyama and Gopal is combinable with Halverson because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a speech recognition function, as taught by Halverson. The motivation for doing so would have been that speech is a useful and natural form of human input (para. 25, lines 11-14 of Halverson). Therefore, it would have been obvious to combine Halverson with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 14 and 92.

Further regarding claims 15 and 93: Halverson discloses applying a profile analysis function to the time-based media data (para. 23, lines 4-7 of Halverson).

8. Claims 16, 19, 94 and 97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar

Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), Halverson (US Patent Application Publication 2002/0101513 A1), and Chino (US Patent 6,118,888).

Regarding claims 16 and 94: Jacobs in view of Motoyama, Gopal and Halverson does not disclose expressly that said multimedia function includes applying audio event detection to the time-based media data.

Chino discloses applying audio event detection to the time-based media data (column 14, lines 8-18 of Chino). The system detects when audio data is intended to be input by the user, while any other noise is ignored by the system (column 14, lines 8-18 of Chino).

Jacobs in view of Motoyama, Gopal and Halverson is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to detect audio data events, as taught by Chino. The motivation for doing so would have been to prevent unintended and erroneous audio input (column 14, lines 10-11 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama, Gopal and Halverson to obtain the invention as specified in claims 16 and 94.

Regarding claims 19 and 97: Jacobs in view of Motoyama, Gopal and Halverson does not disclose expressly that said multimedia function includes applying a sound source localization function to the time-based media data.

Chino discloses applying a sound source localization function to time-based media data (column 13, lines 5-14 of

Chino). By using the gaze object detection portion of the multi-modal interface apparatus, the audio sound source localization is determined.

Jacobs in view of Motoyama, Gopal and Halverson is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a sound source localization function to the time-based media data, as taught by Chino. The motivation for doing so would have been to ensure that user input is intended, and the user is not speaking to someone else (column 1, lines 52-58 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama, Gopal and Halverson to obtain the invention as specified in claims 19 and 97.

9. Claims 17-18 and 95-96 rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), Halverson (US Patent Application Publication 2002/0101513 A1), Chino (US Patent 6,118,888), and Kametani (US Patent 5,091,948).

Regarding claims 17 and 95: Jacobs in view of Motoyama, Gopal, Halverson and Chino does not disclose expressly that said multimedia function includes applying a speaker recognition function to the time-based media data.

Kametani discloses applying a speaker recognition function to said time-based media data (column 5, lines 29-35 of Kametani).

Jacobs in view of Motoyama, Gopal, Halverson and Chino is combinable with Kametani because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a speaker recognition function to said time-based media data, as taught by Kametani. The motivation for doing so would have been that using a speaker recognition function extracts parameters that uniquely identify a speaker, thus improving the level of speaker discrimination (column 5, lines 29-35 of Kametani). Therefore, it would have been obvious to combine Kametani with Jacobs in view of Motoyama, Gopal, Halverson and Chino to obtain the invention as specified in claims 17 and 95.

Regarding claims 18 and 96: Jacobs in view of Motoyama, Gopal, Halverson and Chino does not disclose expressly that said multimedia function includes applying a speaker segmentation function to the time-based media data.

Kametani discloses applying a speaker segmentation function to time-based media data (figure 3d and column 5, lines 5-9 and lines 29-33 of Kametani).

Jacobs in view of Motoyama, Gopal, Halverson and Chino is combinable with Kametani because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a speaker segmentation function to said time-based media data, as taught by Kametani. The motivation for doing so would have been that

using a speaker segmentation function extracts parameters that uniquely identify a speaker, thus improving the level of speaker discrimination (column 5, lines 29-35 of Kametani). Therefore, it would have been obvious to combine Kametani with Jacobs in view of Motoyama, Gopal, Halverson and Chino to obtain the invention as specified in claims 18 and 96.

10. Claims 22, 30-31, 100 and 108-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), and Krumm (US Patent 6,611,622 B1).

Regarding claims 22 and 100: Jacobs in view of Motoyama and Gopal does not disclose expressly that said multimedia function includes applying a color histogram analysis function to said time-based media data.

Krumm discloses applying a color histogram analysis function to time-based media data (figure 2(202) and column 8, lines 46-47 of Krumm).

Jacobs in view of Motoyama and Gopal is combinable with Krumm because they are from the same field of endeavor, namely control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a color histogram analysis function to the time-based media data, as taught by Krumm. The motivation for doing so would have been to better identify people or objects in scenes generated subsequent to a model scene (column 8, lines 53-58 of Krumm). Therefore, it would

have been obvious to combine Krumm with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 22 and 100.

Regarding claims 30 and 108: Jacobs in view of Motoyama and Gopal does not disclose expressly that said multimedia function includes applying a foreground/background segmentation function to said time-based media data.

Krumm discloses applying a foreground/background segmentation function to time-based media data (column 10, lines 13-15 of Krumm).

Jacobs in view of Motoyama and Gopal is combinable with Krumm because they are from the same field of endeavor, namely control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a foreground/background segmentation function to the time-based media data, as taught by Krumm. The motivation for doing so would have been that the foreground segment is needed to further segment for the purpose of identifying people and objects in an image (column 10, lines 15-18 of Krumm). Therefore, it would have been obvious to combine Krumm with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 30 and 108.

Regarding claims 31 and 109: Jacobs in view of Motoyama and Gopal does not disclose expressly that said multimedia function includes applying a scene segmentation function to said time-based media data.

Krumm discloses applying a scene segmentation function to time-based media data (column 10, lines 15-18 of Krumm).

Jacobs in view of Motoyama and Gopal is combinable with Krumm because they are from the same field of endeavor, namely

control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a scene segmentation function to the time-based media data, as taught by Krumm. The motivation for doing so would have been that segmenting the foreground scene is needed to identify people and objects in an image (column 10, lines 15-18 of Krumm). Therefore, it would have been obvious to combine Krumm with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 31 and 109.

11. Claims 29/1 and 107/81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), and Kim (US Patent 6,594,377 B1).

Regarding claims 29/1 and 107/81: Jacobs in view of Motoyama and Gopal does not disclose expressly that said multimedia function includes applying a distance estimation function to said time-based media data.

Kim discloses applying a distance estimation to image media data (column 3, lines 33-36 of Kim).

Jacobs in view of Motoyama and Gopal is combinable with Kim because they are from the same field of endeavor, namely the control and processing of media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply distance estimation, as taught by Kim, to the time-based media data taught by Motoyama. The motivation

for doing so would have been to determine if the user, or a relevant part of the user, is within the required operational range (column 4, lines 28-34 of Kim). Therefore, it would have been obvious to combine Kim with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 29/1 and 107/81.

12. Claims 29/28 and 107/106 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), Chino (US Patent 6,118,888), and Kim (US Patent 6,594,377 B1).

Regarding claims 29/28 and 107/106: Jacobs in view of Motoyama, Gopal and Chino does not disclose expressly that said multimedia function includes applying a distance estimation function to said time-based media data.

Kim discloses applying a distance estimation to image media data (column 3, lines 33-36 of Kim).

Jacobs in view of Motoyama, Gopal and Chino is combinable with Kim because they are from the same field of endeavor, namely the control and processing of media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply distance estimation, as taught by Kim, to the time-based media data taught by Motoyama. The motivation for doing so would have been to determine if the user, or a relevant part of the user, is within the required operational range (column 4, lines 28-34 of Kim). Therefore, it

would have been obvious to combine Kim with Jacobs in view of Motoyama, Gopal and Chino to obtain the invention as specified in claims 29/28 and 107/106.

13. Claims 32-36 and 110-114 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), Krumm (US Patent 6,611,622 B1), and Chino (US Patent 6,118,888).

Regarding claims 32 and 110: Jacobs in view of Motoyama, Gopal and Krumm does not disclose expressly that said multimedia function includes applying a face recognition function to the time-based media data.

Chino discloses applying a face recognition function to time-based media data (figure 20(406) and column 24, lines 25-27 of Chino).

Jacobs in view of Motoyama, Gopal and Krumm is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a face recognition function to time-based media data, as taught by Chino. The motivation for doing so would have been to determine which particular user corresponds to the current user by recognition of the current user's face (column 26, lines 20-22 of Chino). Therefore, it would have been obvious to combine Chino with

Jacobs in view of Motoyama, Gopal and Krumm to obtain the invention as specified in claims 32 and 110.

Regarding claims 33 and 111: Jacobs in view of Motoyama, Gopal and Krumm does not disclose expressly that said multimedia function includes applying a face detection function to the time-based media data.

Chino discloses applying a face detection function to time-based media data (figure 20(406) and column 24, lines 25-27 of Chino).

Jacobs in view of Motoyama, Gopal and Krumm is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a face detection function to time-based media data, as taught by Chino. The motivation for doing so would have been to determine which particular user corresponds to the current user by recognition of the current user's face (column 26, lines 20-22 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama, Gopal and Krumm to obtain the invention as specified in claims 33 and 111.

Regarding claims 34 and 112: Jacobs in view of Motoyama, Gopal and Krumm does not disclose expressly that the multimedia function includes applying an optical character recognition function to the time-based media data.

Chino discloses applying an optical character recognition function to time-based media data (figure 3(102j) and column 7, lines 14-18 of Chino).

Jacobs in view of Motoyama, Gopal and Krumm is combinable with Chino because they are from the same field of endeavor,

namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply an optical character recognition function to time-based media data, as taught by Chino. The suggestion for doing so would have been that character recognition from an electronic pen is simply another useful electronic means to input data into a computerized system (figure 3 and column 7, lines 2-11 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama, Gopal and Krumm to obtain the invention as specified in claims 34 and 112.

Regarding claims 35 and 113: Jacobs in view of Motoyama, Gopal and Krumm does not disclose expressly that said multimedia function includes applying a face recognition function to the time-based media data.

Chino discloses applying a face recognition function to time-based media data (figure 20(406) and column 24, lines 25-27 of Chino).

Jacobs in view of Motoyama, Gopal and Krumm is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a face recognition function to time-based media data, as taught by Chino. The motivation for doing so would have been to determine which particular user corresponds to the current user by recognition of the current user's face (column 26, lines 20-22 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama, Gopal and Krumm to obtain the invention as specified in claims 35 and 113.

Regarding claims 36 and 114: Jacobs in view of Motoyama, Gopal and Krumm does not disclose expressly that said multimedia function includes applying a face detection function to the time-based media data.

Chino discloses applying a face detection function to time-based media data (figure 20(406) and column 24, lines 25-27 of Chino).

Jacobs in view of Motoyama, Gopal and Krumm is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a face detection function to time-based media data, as taught by Chino. The motivation for doing so would have been to determine which particular user corresponds to the current user by recognition of the current user's face (column 26, lines 20-22 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama, Gopal and Krumm to obtain the invention as specified in claims 36 and 114.

14. Claims 37, 39, 115 and 117 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), and Gerber (US Patent 5,568,406).

Regarding claims 37 and 115: Jacobs in view of Motoyama and Gopal does not disclose expressly that said multimedia

function includes applying an automobile recognition function to said time-based media data.

Gerber discloses applying an automobile recognition function to time-based media data (column 8, lines 42-45 of Gerber).

Jacobs in view of Motoyama and Gopal is combinable with Gerber because they are from the same field of endeavor, namely the control and processing of time-based image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply an automobile recognition function to said time-based media data, as taught by Gerber. The motivation for doing so would have been to determine from the time-based media data whether or not the automobile in the time-based media data is stolen (column 8, lines 45-46 of Gerber). Therefore, it would have been obvious to combine Gerber with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 37 and 115.

Regarding claims 39 and 117: Jacobs in view of Motoyama and Gopal does not disclose expressly that said multimedia function includes applying a license plate recognition function to said time-based media data.

Gerber discloses applying a license plate recognition function to time-based media data (column 3, lines 42-47 and lines 63-64 of Gerber).

Jacobs in view of Motoyama and Gopal is combinable with Gerber because they are from the same field of endeavor, namely the control and processing of time-based image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a license plate recognition function to said time-based media data, as taught by Gerber.

The motivation for doing so would have been to determine from the time-based media data whether or not the automobile in the time-based media data is stolen (column 1, line 66 to column 2, line 2 of Gerber). Therefore, it would have been obvious to combine Gerber with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 39 and 117.

15. Claims 38 and 116 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), Gerber (US Patent 5,568,406), and Chino (US Patent 6,118,888).

Regarding claims 38 and 116: Jacobs in view of Motoyama, Gopal and Gerber does not disclose expressly that the multimedia function includes applying a motion analysis function to the time-based media data.

Chino discloses applying a motion analysis function to time-based media data (figure 3(102f) and column 7, lines 33-38 of Chino).

Jacobs in view of Motoyama, Gopal and Gerber is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a motion analysis function to time-based media data, as taught by Chino. The suggestion for doing so would have been that detection of a user's motion and gestures is simply another useful electronic means to input data into a computerized system (figure 3 and

column 7, lines 2-11 of Chino). Therefore, it would have been obvious to combine Chino with Jacobs in view of Motoyama, Gopal and Gerber to obtain the invention as specified in claims 38 and 116.

16. Claims 41-44, 49-50, 52, 56-63, 68, 70, 78 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), and Hymel (US Patent Application Publication 2003/0220988 A1).

Regarding claims 41-44, 49-50 and 52: Jacobs in view of Motoyama and Gopal does not disclose expressly that said user interface is configured to allow a user to control a compact disc (CD) device, a digital video disc (DVD) device, an audio tape device, a video tape device, a MIDI player, a cellular telephone, and/or a world wide web display.

Hymel discloses a user interface configured to allow a user to control (para. 10, lines 1-5 of Hymel) a compact disc (CD) device (para. 10, lines 14-15 and lines 19-20 of Hymel), a digital video disc (DVD) device (para. 10, lines 14-15 and lines 20-21 of Hymel), an audio tape device (audio tape device is a type of audio player, MP3 player is merely an example) (para. 10, lines 14-15 and line 19 of Hymel), a video tape device (digital camcorder, which, as is well-known in the art, uses a digital video (DV) cassette tape) (para. 10, lines 14-15 and line 20 of Hymel), a MIDI player (MIDI player is a type of audio player, MP3 player is merely an example) (para. 10, lines 14-15

and line 19 of Hymel), a cellular telephone (para. 10, lines 14-15 of Hymel), and/or a world wide web display (figure 1(130) and para. 11, lines 1-10 of Hymel).

Jacobs in view of Motoyama and Gopal is combinable with Hymel because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to configure the user interface taught by Motoyama so that the user interface allows a user to control a compact disc (CD) device, a digital video disc (DVD) device, an audio tape device, a video tape device, a MIDI player, a cellular telephone, and/or a world wide web display, as taught by Hymel. The motivation for doing so would have been to allow a user to connect a variety of different types of peripheral devices to an overall system, thus allowing the user to perform a variety of functions (para. 2, lines 1-6 of Hymel). Therefore, it would have been obvious to combine Hymel with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 41-44, 49-50 and 52.

Regarding claims 56-63, 68, 70, 78 and 80: Jacobs in view of Motoyama and Gopal does not disclose expressly that the second output device is a DVD drive, CD drive, audio tape drive, video cassette device, removable media device, embedded audio recorder, embedded video recorder, non-volatile storage device, cellular telephone, world-wide web display, hardware for performing audio capture, and/or a disposable media writer.

Hymel discloses a user interface configured to allow a user to control as an output device (para. 10, lines 1-5 of Hymel) a DVD drive (para. 10, lines 14-15 and lines 20-21 of Hymel), CD drive (para. 10, lines 14-15 and lines 19-20 of Hymel), audio

tape drive (audio tape drive is a type of audio player, MP3 player is merely an example) (para. 10, lines 14-15 and line 19 of Hymel), video cassette device (digital camcorder, which, as is well-known in the art, uses a digital video (DV) cassette tape) (para. 10, lines 14-15 and line 20 of Hymel), removable media device (the compact discs used in compact disc devices are well-known to be removable media devices) (para. 10, lines 14-15 and lines 19-20 of Hymel), embedded (para. 10, lines 22-26 of Hymel) audio recorder (para. 10, lines 14-15 and line 19 of Hymel), embedded (para. 10, lines 22-26 of Hymel) video recorder (para. 10, lines 14-15 and line 20 of Hymel), non-volatile storage device (compact disc devices and digital video disc devices are well-known to be non-volatile storage media devices) (para. 10, lines 14-15 and lines 19-21 of Hymel), cellular telephone (para. 10, lines 14-15 of Hymel), world-wide web display (figure 1 (130) and para. 11, lines 1-10 of Hymel), hardware for performing audio capture (as is well-known in the art, part of the function of a digital camcorder is to capture audio signals, along with the video) (para. 10, lines 14-15 and line 20 of Hymel), and/or a disposable media writer (compact discs (CD-R's) and digital video discs (DVD±R's) are well-known to be disposable media) (para. 10, lines 14-15 and lines 19-21 of Hymel).

Jacobs in view of Motoyama and Gopal is combinable with Hymel because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the second output device be a DVD drive, CD drive, audio tape drive, video cassette device, removable media device, embedded audio recorder, embedded video

recorder, non-volatile storage device, cellular telephone, world-wide web display, hardware for performing audio capture, and/or a disposable media writer, as taught by Hymel. The motivation for doing so would have been to allow a user to connect a variety of different types of peripheral devices to an overall system, thus allowing the user to perform a variety of functions (para. 2, lines 1-6 of Hymel). Therefore, it would have been obvious to combine Hymel with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 56-63, 68, 70, 78 and 80.

17. Claims 46, 54, 64-66 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), and Stevens (US Patent Application Publication 2002/0010641 A1).

Regarding claims 46 and 54: Jacobs in view of Motoyama and Gopal does not disclose expressly that said user interface is configured to allow a user to control encryption hardware and/or a radio receiver.

Stevens discloses a user interface (figure 3(104) of Stevens) configured to allow a user to control encryption hardware (para. 54, lines 1-9 of Stevens) and a radio receiver (figure 3(110) and para. 36, lines 1-8 of Stevens).

Jacobs in view of Motoyama and Gopal is combinable with Stevens because they are from the same field of endeavor, namely the control and processing of time-based media data. At the

time of the invention, it would have been obvious to a person of ordinary skill in the art to configure the user interface taught by Motoyama to allow a user to control encryption hardware and a radio receiver, as taught by Stevens. The motivation for doing so would have been to allow users to retrieve desired distributions of audio and video data over a controlled broadcast (para. 4, lines 1-5 of Stevens). Therefore, it would have been obvious to combine Stevens with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 46 and 54.

Regarding claims 64-66 and 74: Jacobs in view of Motoyama and Gopal does not disclose expressly that the second output device is an embedded multimedia server, audio encryption hardware, video encryption hardware, and/or a satellite radio receiver.

Stevens discloses controlling as an output device an embedded multimedia server (para. 53, lines 6-10 of Stevens), audio encryption hardware (para. 54, lines 1-4 and para. 57, lines 3-4 of Stevens), video encryption hardware (para. 54, lines 1-4 of Stevens), and/or a satellite radio receiver (para. 36, lines 1-6 of Stevens).

Jacobs in view of Motoyama and Gopal is combinable with Stevens because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the second output device be an embedded multimedia server, audio encryption hardware, video encryption hardware, and/or a satellite radio receiver, as taught by Stevens. The motivation for doing so would have been to allow users to retrieve desired distributions of audio and

video data over a controlled broadcast (para. 4, lines 1-5 of Stevens). Therefore, it would have been obvious to combine Stevens with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claims 64-66 and 74.

18. Claims 51, 69, 71-73 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), Stevens (US Patent Application Publication 2002/0010641 A1), and McCarthy (US Patent 6,296,693 B1).

Regarding claim 51: Jacobs in view of Motoyama and Gopal does not disclose expressly that said user interface is configured to allow a user to control a two-way radio.

Stevens discloses a user interface (figure 3(104) of Stevens) configured to allow a user to control a radio receiver (figure 3(110) and para. 36, lines 1-8 of Stevens).

Jacobs in view of Motoyama and Gopal is combinable with Stevens because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to configure the user interface taught by Motoyama to allow a user to control a radio receiver, as taught by Stevens. The motivation for doing so would have been to allow users to retrieve desired distributions of audio and video data over a controlled broadcast (para. 4, lines 1-5 of Stevens). Therefore, it would have been obvious to combine Stevens with Jacobs in view of Motoyama and Gopal.

Jacobs in view of Motoyama, Gopal and Stevens does not disclose expressly that said radio is specifically a two-way radio.

McCarthy discloses using a two-way (CB) radio (column 7, lines 13-16 and lines 21-23 of McCarthy).

Jacobs in view of Motoyama, Gopal and Stevens is combinable with McCarthy because they are from similar problem solving areas, namely the control of data communication hardware. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide for user control of a radio, as taught by Stevens, wherein said radio is specifically a two-way radio, as taught by McCarthy. The motivation for doing so would have been to provide the user with means of personal communication. Therefore, it would have been obvious to combine McCarthy with Jacobs in view of Motoyama, Gopal and Stevens to obtain the invention as specified in claim 51.

Regarding claims 69, 71-73 and 76: Jacobs in view of Motoyama and Gopal does not disclose expressly that the second output device is a two-way radio, a radio receiver for receiving AM signals, a radio receiver for receiving FM signals, a radio receiver for receiving short wave radio signals, and/or an emergency alert monitor for receiving emergency broadcast system alerts.

Stevens discloses controlling as an output device a radio receiver (para. 36, lines 1-6 of Stevens).

Jacobs in view of Motoyama and Gopal is combinable with Stevens because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of

ordinary skill in the art to have the second output device be a radio receiver, as taught by Stevens. The motivation for doing so would have been to allow users to retrieve desired distributions of audio data over a controlled broadcast (para. 4, lines 1-5 of Stevens). Therefore, it would have been obvious to combine Stevens with Jacobs in view of Motoyama and Gopal.

Jacobs in view of Motoyama, Gopal and Stevens does not disclose expressly that said radio receiver is a two-way radio, a radio receiver for receiving AM signals, a radio receiver for receiving FM signals, a radio receiver for receiving short wave radio signals, and/or an emergency alert monitor for receiving emergency broadcast system alerts.

McCarthy discloses output devices including a two-way (CB) radio (column 7, lines 13-16 and lines 21-23 of McCarthy), a radio receiver for receiving AM signals (column 7, lines 13-16 and lines 20-21 of McCarthy), a radio receiver for receiving FM signals (column 7, lines 13-16 and lines 20-21 of McCarthy), a radio receiver for receiving short wave radio signals (column 7, lines 13-16 and lines 21-23 of McCarthy), and/or an emergency alert monitor for receiving emergency broadcast system alerts (column 7, lines 13-16 and lines 18-20 of McCarthy).

Jacobs in view of Motoyama, Gopal and Stevens is combinable with McCarthy because they are from similar problem solving areas, namely the control of data communication hardware. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide for user control of a radio, as taught by Stevens, wherein said radio is specifically a two-way radio, a radio receiver for receiving AM signals, a radio receiver for receiving FM signals, a radio receiver for receiving short wave radio signals, and/or an

emergency alert monitor for receiving emergency broadcast system alerts, as taught by McCarthy. The motivation for doing so would have been to provide the user with means of personal communication. Therefore, it would have been obvious to combine McCarthy with Jacobs in view of Motoyama, Gopal and Stevens to obtain the invention as specified in claims 69, 71-73 and 76.

19. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), and Wedekind (US Patent 5,115,967).

Regarding claim 53: Jacobs in view of Motoyama and Gopal does not disclose expressly that said user interface is configured to allow a user to control a climate sensor.

Wedekind discloses computer control (column 4, lines 53-58 of Wedekind) of a climate sensor (column 5, lines 3-9 of Wedekind).

Jacobs in view of Motoyama and Gopal is combinable with Wedekind because they are from the same field of endeavor, namely the control and processing of time-based data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to configure the user interface taught by Motoyama to allow a user to control a climate sensor, as taught by Wedekind. The motivation for doing so would have been to control the overall climate of the room or building in which the printer system user is located. Therefore, it would have

been obvious to combine Wedekind with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claim 53.

20. Claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), and Rowe (US Patent Application Publication 2001/0003846 A1).

Regarding claim 75: Jacobs in view of Motoyama and Gopal does not disclose expressly that the second output device is a weather alert receiver.

Rowe discloses controlling as an output device a weather alert receiver (para. 62, lines 3-6 of Rowe).

Jacobs in view of Motoyama and Gopal is combinable with Rowe because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a weather alert receiver as an output device, as taught by Rowe. The suggestion for doing so would have been that weather alert data is simply another form of useful multi-media data that a user may wish to obtain. Therefore, it would have been obvious to combine Rowe with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claim 75.

21. Claim 77 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs (US Patent 5,386,510) in view of Motoyama (US Patent 6,476,793 B1), Gopal ("Load Balancing in a

Heterogeneous Computing Environment", by Sridhar Gopal and Sriram Vajapeyam, *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 6-9 January 1998), and Abgrall (US Patent 6,373,498 B1).

Regarding claim 77: Jacobs in view of Motoyama and Gopal does not disclose expressly that the second output device is a weather alert receiver.

Abgrall discloses controlling as an output device hardware for performing VGA screen captures (column 12, lines 6-8 of Abgrall).

Jacobs in view of Motoyama and Gopal is combinable with Abgrall because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use hardware to perform VGA screen captures, as taught by Abgrall. The suggestion for doing so would have been that a VGA screen capture is simply another form of useful multi-media data that a user may wish to obtain. Therefore, it would have been obvious to combine Abgrall with Jacobs in view of Motoyama and Gopal to obtain the invention as specified in claim 77.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson
Examiner
Art Unit 2624

JAT
01 August 2005

THOMAS D LEE
PRIMARY EXAMINER